AMENDMENT

Please amend the pending application in accordance with the following particulars.

In the Claims

The claims are amended as shown on the following pages under the heading LIST OF CURRENT CLAIMS. The list shows the status of all claims presently in the application and is intended to supersede all prior versions of the claims in the application. Any cancellation of claims is made without prejudice or disclaimer.

LIST OF CURRENT CLAIMS

1. (Previously Presented) A security element for security papers, documents of value and the like, comprising a thin-layer element with color shift effect, said element including a reflection layer, an absorber layer and a spacer layer disposed between reflection layer and absorber layer, and wherein the spacer layer is formed by a printed layer having dispersion particles with monomodal or oligomodal size distribution.

2. (Previously Presented) The security element according to claim 1, wherein the printed layer contains a main species of mainly spherical, monodisperse dispersion particles, the diameter of which determines the thickness of the spacer layer.

3. (Previously Presented) The security element according to claim 2, wherein the dispersion particles of the main species have a diameter which lies between about 100 nanometers and about 1500 nanometers.

4. (Previously Presented) The security element according to claim 2, wherein the printed layer comprises a monolayer or submonolayer of the dispersion particles of the main species.

5. (Previously Presented) The security element according to claim 2, wherein the dispersion particles of the main species have a melting temperature in the range of 50°C to 250°C.

6. (Previously Presented) The security element according to claim 2, wherein the dispersion particles of the main species are formed of polystyrene, styrene-acrylonitrile copolymers (SAN), aromatic polyesters or polyamides.

7. (Previously Presented) The security element according to claim 2, wherein the dispersion particles of the main species have a core-shell structure with a high-melting core and an easily film-forming shell.

8. (Previously Presented) The security element according to claim 7, wherein the core of the dispersion particles is formed of a hard polymer such as polystyrene, PMMA, styrene-acrylonitrile copolymers (SAN) or aromatic polyesters, and the shell is formed of PMMA, polybutadiene or polyisoprene.

9. (Previously Presented) The security element according to claim 2, wherein the printed layer beside the dispersion particles of the main species also contains smaller dispersion particles said smaller dispersion particles disposed in spaces between the dispersion particles of the main species.

10. (Previously Presented) The security element according to claim 1, wherein the reflection layer is opaque.

11. (Previously Presented) The security element according to claim 1, wherein the reflection layer is formed by a semitransparent metal layer.

12. (Previously Presented) The security element according to claim 1, wherein the reflection layer is formed by a transparent reflection layer which has a refractive index differing from that of the printed layer.

13. (Previously Presented) The security element according to claim 1, wherein the printed layer comprises two or a plurality of partial layers, each partial layer containing mainly spherical, monodisperse dispersion particles with refractive indices differing from each other.

14. (Previously Presented) The security element according to claim 13, wherein at least two of the partial layers are separated by a semitransparent metal layer.

15. (Previously Presented) The security element according to claim 13, wherein at least two of the partial layers are disposed directly one above the other.

16. (Previously Presented) The security element according to claim 1, wherein the thin-layer element on a side of the reflection layer facing away from the spacer layer has a second absorber layer and a second spacer layer disposed between the second absorber layer and the reflection layer, so that the result is a thin-layer element with color shift effects visible from both sides, wherein the second spacer layer is formed by a second printed layer having dispersion particles with monomodal or oligomodal size distribution.

17. (Previously Presented) The security element according to claim 16, wherein the second printed layer contains a main species of mainly spherical, monodisperse dispersion particles according to claim 3.

18. (Previously Presented) The security element according to claim 17, wherein the first and second printed layer each contain a main species with different diameters and/or different refractive indexes, so that from the two sides of the security element different color shift effects are recognizable.

19. (Previously Presented) The security element according to claim 1, wherein the spaces between the dispersion particles a matrix filling made of polymer material is disposed.

20. (Previously Presented) The security element according to claim 1, wherein the thin-layer element is provided with an areal diffraction structure.

21. (Previously Presented) The security element according to claim 20, wherein the absorber layer, the spacer layer and the reflection layer are disposed in the recited order on a carrier having the areal diffraction structure.

22. (Previously Presented) The security element according to claim 20, wherein the reflection layer, the spacer layer and the absorber layer are disposed in the recited order on a carrier having the areal diffraction structure.

23. (Previously Presented) The security element according to claim 20, wherein the absorber layer has a transmission of between 25% and 75%.

24. (Previously Presented) The security element according to claim 20, wherein the areal diffraction structure is formed by an embossed structure.

25. (Previously Presented) The security element according to claim 1, wherein the security element forms a security strip, a security thread, a security band, a patch or a transfer element for applying onto a security paper, document of value and the like.

26. (Previously Presented) A security paper for producing security documents, such as bank notes, ID cards or the like, which is provided with a security element according to claim 1.

27. (Previously Presented) The security paper according to claim 26, with at least one window area or hole covered with the security element.

28. (Previously Presented) A document of value, such as bank note, ID card or the like, which is provided with a security element according to claim 1.

29. (Previously Presented) The document of value according to claim 28, with at least one window area or hole covered with the security element.

30. (Currently Amended) A ~~use of a~~ security element according to claim 1, wherein the security element is secured to goods of any kind for protecting the goods ~~of any kind~~.

31. (Previously Presented) A method for manufacturing a security element for security papers, documents of value and the like, which contains a thin-layer element with color shift effect that has a reflection layer, an absorber layer and a spacer layer disposed between reflection layer and absorber layer, comprising applying the spacer layer by a printing method with a printing ink having dispersion particles with monomodal or oligomodal size distribution.

32. (Previously Presented) The method according to claim 31, wherein the spacer layer is applied by gravure printing, flexographic printing, or offset printing.

33. (Previously Presented) The method according to claim 31, wherein a printing ink is used, which contains a main species of substantially spherical, monodisperse dispersion particles.

34. (Previously Presented) The method according to claim 31, wherein the solids content of the ink and the transferred amount are adjusted during the printing operation in such a way that on the reflection layer substantially a monolayer or submonolayer with the dispersion particles is formed.

35. (Previously Presented) The method according to claim 31, wherein the printed spacer layer is subjected to a heating step, during which at least one constituent of the printing ink melts.

36. (Previously Presented) The method according to claim 35, wherein the printing ink contains dispersion particles, which melt during the heating step.

37. (Previously Presented) The method according to claim 35, wherein the printing ink has dispersion particles having a core-shell structure with a high-melting core and an easily film-forming shell, wherein the shells of the dispersion particles melt and form a film during the heating step.

38. (Previously Presented) The method according to claim 35, wherein the printing ink besides a main species of dispersion particles, the diameter of which determines the thickness of the spacer layer, contains dispersion particles with smaller size, which melt and form a film during the heating step.

39. (Previously Presented) The method according to claim 31, wherein the absorber layer, the spacer layer and the reflection layer are applied in the recited order onto a carrier having an areal diffraction structure.

40. (Previously Presented) The method according to claim 31, wherein the reflection layer, the spacer layer and the absorber layer are applied in the recited order onto a carrier having the areal diffraction structure.

41. (Previously Presented) The method according to claim 39, wherein the absorber layer is vapor-deposited onto the carrier or the spacer layer.

42. (Previously Presented) The method according to claim 31, wherein the thin-layer element on the side of the reflection layer facing away from the spacer layer has a second spacer layer and a second absorber layer, wherein the second spacer layer is applied by a printing method with a printing ink having dispersion particles with monomodal or oligomodal size distribution, so that a thin-layer element with color shift effects visible from the two sides is the result.

43. (Previously Presented) The method according to claim 42, wherein for the second spacer layer a printing ink is used, which contains a main species of substantially spherical, monodisperse dispersion particles.

44. (Previously Presented) The method according to claim 42, wherein for the first and second spacer layer printing inks are used, which each contain a main species with different diameters and/or different refractive indexes, so that from the two sides of the thin-layer element different color shift effects are recognizable.

45. (Previously Presented) The method according to claim 31, wherein the printing of the spacer layer(s) is effected in a reel-fed fashion with a layer thickness uniform across the whole width of the roll.

46. (Previously Presented) A printing ink with optically variable coloring pigments, comprising interference layer particles, the layer structure of which has a reflection layer, an absorber layer and a spacer layer disposed between reflection layer and absorber layer, wherein the spacer layer is formed by a printing method with dispersion particles having monomodal or oligomodal size distribution, or the layer structure of which comprises a first absorber layer, a first spacer layer, a reflection layer, a second spacer layer and a second absorber layer, wherein the first spacer layer is disposed between the reflection layer and the first absorber layer, the second spacer layer is disposed between the reflection layer and the second absorber layer, and wherein the first and second spacer layer are formed by a first or second printed layer having dispersion particles with monomodal or oligomodal size distribution.

47. (Previously Presented) The printing ink according to claim 46, wherein the first and second printed layer each contain a main species of mainly spherical, monodisperse dispersion particles, the diameters of which determine the thickness of the first or second spacer layer.

48. (Previously Presented) The printing ink according to claim 47, wherein the dispersion particles of the main species of the first and/or second printed layer have a diameter which lies between about 100 nanometers and about 1500 nanometers.

49. (Previously Presented) The printing ink according to claim 46, wherein the first and/or second printed layer each comprises a monolayer or submonolayer of the dispersion particles of the main species.

50. (Previously Presented) The printing ink according to claim 46, wherein the dispersion particles of the main species of the first and/ or second printed layer have a melting temperature in the range of 50°C to 250°C.

51. (Previously Presented) The printing ink according to claim 46, wherein the dispersion particles of the main species of the first and/ or second printed layer are formed of polystyrene, styrene-acrylonitrile copolymers (SAN), aromatic polyesters or polyamides.

52. (Previously Presented) The printing ink according to claim 46, wherein the dispersion particles of the main species of the first and/or second printed layer have a core-shell structure with a high-melting core and an easily film-forming shell.

53. (Previously Presented) The printing ink according to claim 52, wherein the core of the dispersion particles is formed of a hard polymer, such as polystyrene, PMMA, styrene-acrylonitrile copolymers (SAN) or aromatic polyesters, and the shell of PMMA, polybutadiene or polyisoprene.

54. (Previously Presented) The printing ink according to claim 46, wherein the first and/or second printed layer besides the dispersion particles of the main species also contains dispersion particles with smaller size, which are disposed in spaces between the dispersion particles of the main species.

55. (Previously Presented) A method for producing a printing ink having optically variable coloring pigments, wherein a thin-layer element with color shift effect is applied onto a substrate by applying a reflection layer, an absorber layer, and a spacer layer onto the substrate, wherein the spacer layer is applied with the help of a printing method with dispersion particles having monomodal or oligomodal size distribution, the thin-layer element is removed from the substrate, the removed thin-layer element is ground into a predetermined particle size and the particles are mixed with a binding agent as optically variable coloring pigments.

56. (Previously Presented) A method for producing a printing ink with optically variable coloring pigments, comprising the steps:

a) a thin-layer element with color shift effect is applied onto a substrate by applying onto the substrate in the recited order a first absorber layer, a first spacer layer, a reflection layer, a second spacer layer and a second absorber layer,

wherein the first and second spacer layer each are applied by a printing method with a printing ink having dispersion particles with monomodal or oligomodal size distribution,

b) the thin-layer element is removed from the substrate,

c) the removed thin-layer element is ground into a predetermined particle size, and

d) the particles are mixed with a binding agent as optically variable coloring pigments.

57. (Previously Presented) The method according to claim 55, wherein the spacer layers are applied by gravure printing, flexographic printing, or offset printing.

58. (Previously Presented) The method according to claim 55, wherein for the application of the spacer layers printing inks are used, said printing inks including a main species of mainly spherical, monodisperse dispersion particles.

59. (Previously Presented) The method according to claim 55, wherein the solids content of the ink and the transferred portion are adjusted during the printing operation in such a way that on the reflection layer mainly a monolayer or submonolayer with the dispersion particles is formed.

60. (Previously Presented) The method according to claim 55, wherein after its application the printing ink is subjected to a heating step, during which at least one constituent of the printing ink melts.

61. (Previously Presented) The method according to claim 60, wherein the printing ink contains dispersion particles, which melt during the heating step.

62. (Previously Presented) The method according to claim 60, wherein the printing ink has dispersion particles having a core-shell structure with a high-melting core and an easily film-forming shell, wherein the shells of the dispersion particles melt and form a film during the heating step.

63. (Previously Presented) The method according to claim 60, wherein the printing ink beside a main species of dispersion particles, the diameter of which determines the thickness of the spacer layer, contains dispersion particles with smaller size, which melt and form a film during the heating step.

64. (Previously Presented) The method according to claim 56, wherein the spacer layers are applied by gravure printing, flexographic printing, or offset printing.